**Project4 – team2 Proposal**

The kind of data you’d like to work with / the field you’re interested in

* Gaming Industry
  + Blackjack

The questions you’ll ask of the data

* Should I hit or should I stay?
* What is the best approach to playing Blackjack?
* What are my odds of winning based on numbers of player?

Variables

* Input is starting hand
* Output – recommendation of hit or miss based on the prediction

Resources

* Kaggle – data set
  + <https://www.kaggle.com/datasets/mojocolors/900000-hands-of-blackjack-results>
* Reading Resources
  + The House Edge and the Basic Strategy of Blackjack - <https://www.shs-conferences.org/articles/shsconf/pdf/2022/18/shsconf_icprss2022_03038.pdf>
  + The statistics of Blackjack - <https://towardsdatascience.com/the-statistics-of-blackjack-e3b5fc29e67d>
  + Blackjack simulator - <https://freegames.org/blackjack/>
  + Libraries to look at as interest –
    - PyDealer for card handling
    - Gym (OpenAI) for reinforcement learning environments

Divide Tasks by Team Member.

* Asmae & Savi – Tableau Dashboard & documentation
* Daniel – Python – cleaning & analysis (avg. Wins etc. )
* Kayla – Supervised Learning – Building the model to predict.
  + How likely are you to win based on starting card and number of hits?
* Madeline – SQL query from standing hand – show outcomes